Public Perception of Birds and Green Spaces in Singapore

The goal of this survey is to contribute to our research studying the perceptions of people in Singapore about green spaces. You will be asked to fill in an online survey form which includes questions about basic information (age, race, sex, education attainment, income), your frequency of visits to different types of green spaces in Singapore, your perception of the benefits and negative impacts of vegetation and birds, and your knowledge of birds. This questionnaire will take approximately 20 minutes of your time.

To take part in this study you must be currently living in Singapore (Citizen, Permanent Resident, or Long-Term Pass holder). You must be at least 18 years old. Compensation may be provided by the survey company QuestionPro.

This study is funded by the Future Cities Laboratory, Singapore-ETH Centre. You may contact Dr. Daniel Richards (richards@arch.ethz.ch) if you have any questions about the survey. All the information and data gathered from this survey will be published in anonymous form and you will not be identifiable. We will not share your information with any third party except for our formal research collaborators.

On the next page, you will be asked to agree to a consent form to state your agreement to participate in the study and to share the information/data gathered for research purposes only. However, you have the right to withdraw from the study at any time without stating any specific reason.

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- *Please read this form carefully.*
- *Please ask the investigator or the contact person if you have any questions.*

Study title: **Perceptions of birds and green spaces in Singapore**

Study location: **Survey will be conducted online.**

Principal Investigator's Name and First Name: Daniel Richards, Zuzana Drillet

Participant:
- **I participate in this study on a voluntary basis and can withdraw from the study at any time without giving reasons and without any negative consequences.**
- **I have been informed in writing about the aims and the procedures of the study, the advantages and disadvantages as well as potential risks.**
- **I have read the written information for the participants.**
- **I was given sufficient time to make a decision about participating in the study.**
- **By continuing with this online survey I certify that I fulfill the requirements for the study participation mentioned in the information for the volunteers.**
- **I agree that the responsible investigators and/or the members of the ethical committee have access to the original data under strict confidentiality.**
- **I am aware that during the study I have to comply with the requirements and limitations described in the information for the volunteers. In my own health interest the investigators can, without mutual consent, exclude me from the study.**

☐   I Agree

Personal particulars

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*
What is your age?

-- Select --

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* **What is your sex?**

○   Male

○   Female

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* **What is your ethnicity?**

According to the CMIO classification system in Singapore

○ Chinese

○ Malay

○ Indian

○ Others

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* **How many children (aged 14 and below) do you have?**

○ 0

○ 1

○ 2

○ 3

○ 4

○ 5 or more

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* **What is your residential postal code?**

Please enter the name of the street nearest to your residence if postal code is not av ailable

[   ]

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* **What is your residential status?**

According to Immigration & Checkpoints Authority in Singapore

○ Singapore Citizen

○ Permanent Resident

○ Pass Holder

○ Visitor

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* **How long have you lived in Singapore?**

○ I am only visiting and do not live here

P QuestionPro

- Less than 1 year

- 1 - 5 years

- 5 - 10 years

- More than 10 years

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*

What is your highest educational level?

- Primary School

- Secondary School / 'O' Level

- Pre-University / Junior College / 'A' Level

- Vocational Certification / ITE

- Diploma & Professional Qualification

- Graduate Degree

- Postgraduate Degree

- Others

[_ _ _ _ _ _]

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* **What is your primary work activity?**

- Full-time employed

- Student

- Homemaker

- Unemployed

- Unable to work

- Retired

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What is your yearly personal income?

- less than $20,000

○ $20,000 - $40,000

○ $40,000 - $80,000

○ $80,000 - $120,000

○ $120,000 and above

○ Prefer not to answer

Public perception of birds and green spaces in Singapore

Vegetation in Singapore

For the purposes of this survey, we refer to the 'Vegetation in Singapore' according to these five broad categories - grass, tree, shrub, tree planted over shrub, and secondary forest.

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* **Which of the following types of vegetation do you have in your neighbourhood?**

Grass ☐

Tree ☐

Shrub ☐

Tree planted over shrub ☐

Secondary forest ☐

This question is about your perception of vegetation in Singapore.

Please select the options to show how strongly you agree or disagree with the statements below about vegetation in Singapore:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
* It improves air quality	O	O	O	O	O
* It provides me with shade	O	O	O	O	O
* It supports wildlife that I enjoy	O	O	O	O	O
* It is pleasing for me to look at	O	O	O	O	O
* It encourages me to spend time outdoors	O	O	O	O	O
* It provides opportunities for me to learn more about nature	O	O	O	O	O
* It possesses spiritual or religious value	O	O	O	O	O
* It provides me with a good place for socialising	O	O	O	O	O
* It provides me with inspiration for art, creativity, and photography	O	O	O	O	O
* It makes me feel better (e.g. improve					

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
my longevity, relieves my feelings of stress, allow me to relax etc.)	O	O	O	O	O
* It reduces surrounding noise levels	O	O	O	O	O
* It stores carbon	O	O	O	O	O
* It controls the effects of heavy rainfall and flooding	O	O	O	O	O
* It provides food or useful materials	O	O	O	O	O
* It increases my interaction with wildlife that I enjoy	O	O	O	O	O

This question is about your perception of having vegetation in Singapore.

Please select the options to show how strongly you agree or disagree with the statements below about vegetation in Singapore:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
* It encourages the presence of general pests (e.g mosquitoes, rats etc.)	O	O	O	O	O
* It looks messy	O	O	O	O	O
* It is a safety hazard to people and personal property	O	O	O	O	O
* It is strong-smelling	O	O	O	O	O
* It poses a crime risk	O	O	O	O	O
* It makes me feel uneasy	O	O	O	O	O
* It poses a risk of spreading mosquito-borne diseases (e.g. dengue)	O	O	O	O	O
* It is damaging to side-walks	O	O	O	O	O
* It supports wildlife that I do not enjoy	O	O	O	O	O
* It increases my interaction with wildlife that I do not enjoy	O	O	O	O	O

The following questions are about the five broad vegetation types as shown below.

Grass

Tree

Shrub

Tree planted over shrub

Secondary forest

Please select the vegetation type which you feel the following statements best apply to.

	Grass	Tree	Shrub	Tree planted over shrub	Secondary forest	N/A
* It is best at cleaning the air	O	O	O	O	O	O
* It is best at cooling down the environment	O	O	O	O	O	O
* It best supports wildlife that I enjoy	O	O	O	O	O	O
* It is the most pleasing for me to look at	O	O	O	O	O	O
* It most makes me feel like I live in a 'Garden City'	O	O	O	O	O	O
* It most encourages me to spend time outdoors	O	O	O	O	O	O

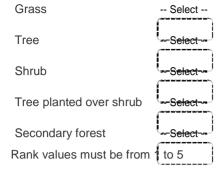|						
* It provides me with the most opportunities to learn more about nature	O	O	O	O	O	O
* It is the best at increasing my connection to my spiritual and/or religious heritage	O	O	O	O	O	O
* It provides me with the best places for socialising	O	O	O	O	O	O
* It provides me with the most inspiration for art, creativity, and photography	O	O	O	O	O	O
* It is best at making me feel better (i.e. improve my longevity, relieves my feelings of stress, allow me to relax etc.)	O	O	O	O	O	O
* It is best at reducing noise levels	O	O	O	O	O	O
* It is best at storing carbon	O	O	O	O	O	O
* It is best at reducing the occurence of flooding	O	O	O	O	O	O
* It is best at increasing my interaction with wildlife that I enjoy	O	O	O	O	O	O

Please select the vegetation type which you feel the following statements best apply to.

	Grass	Tree	Shrub	Tree planted over shrub	Secondary forest	N/A
* It most encourages the presence of general pests (e.g. mosquitoes, rats etc.)	O	O	O	O	O	O
* It looks the messiest	O	O	O	O	O	O
* It is the biggest safety hazard to me and my property	O	O	O	O	O	O
* It is the strongest-smelling	O	O	O	O	O	O
* It makes me feel the most vulnerable to crime	O	O	O	O	O	O
* It makes me feel the most uneasy	O	O	O	O	O	O
* It most increases my risk of contracting diseases (e.g. dengue)	O	O	O	O	O	O
* It is the most damaging to side-walks	O	O	O	O	O	O
* It best supports wildlife that I do not enjoy	O	O	O	O	O	O
* It is best at increasing my interaction with wildlife that I do not enjoy	O	O	O	O	O	O

* **Which vegetation type would you like to see more of being planted in your neighbourhood? Rank**

the following in order of your preference (1 being your most preferred):

Grass   -- Select --

Tree   -- Select --

Shrub   -- Select --

Tree planted over shrub   -- Select --

Secondary forest   -- Select --

Rank values must be from 1 to 5